

Sambou KONE

Sector 5, Mamaribougou Bougoudaba, Bamako, Mali West Africa

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Dual Bachelor's degrees in Computer Engineering & Telecom and Electronics & Communications Engineering (ECE) with Strong Background in Hardware and AI intersection, Skilled enhancing reasoning in various architectures, with strong motivation to pursue a Research Position Advancing Machine Learning accelerated in Embedded Intelligent Systems and Designs.

Skills: C/C++, Python, MATLAB, ML frameworks, VLSI, Embedded Systems, Wireless Systems.

EDUCATION

2020-2024

BTech - Electronics and Communication (Topper 4.56/5.0), Jain University - Bangalore

B.Tech Thesis:

‘Smart Battery Management Systems to Enhance Battery Life Based on Deep Learning’

Supervisor:

Prof. Sunil MP

Submission:

Proposed date – November 2023

Research Methods:

Deep learning models built in Python (Scikit-learn, TensorFlow) estimated SoC, SoH, and RUL with high accuracy. Evaluation using MAE, RMSE, and R^2 showed clear improvements over traditional BMS method

Course works:

, Electrical Circuits I-II, Digital System Design, Numerical Methods, Probability Theory, Statistics, Electronics I-II, Signals and Systems, Electromagnetic Field Theory, Pattern Recognition, Introduction to Digital Signal Processing, Introduction to Digital Communications, VLSI, System On Chips , Introduction to Image Processing, Python , Introduction to Data Science Machine Vision, MATLAB.

2016-2019

Mali

B.Eng. of Computer Eng. & Telecom., **National School of Engineering ENI ABT Bamako -**

Modules:

SQL, HTML/CSS, Java, VoIP, 3G/4G, Operating Systems, Networks and Computer Architecture

Final Project:

Student Management System Website using PHP/JS/HTML/CSS/Bootstrap.

PROFESSIONAL EXPERIENCE

11/2024 – Present

Data Analyst - Full Time (Remote) , ObjectWays Technologies - Chennai (Tamil Nadu). LiDar Object Detection Data Annotation Through Image Processing for ML accuracy .BigQuery SQL and ETL processing (Dataform, Cloud Data Fusion, Apache Beam), Speech-To-Text (STT•French) data insights collection for ML accuracy Test. ~ NLP tools : vTensorAct Studio+ Amazon SageMaker+ Encord

4/2023 – 10/2024

Student Researcher at Jain University , Bangalore, India.

Implementing DSP algorithms, analyzing filter characteristics, and experiments like generating signals, convolution, DFT, and FFT. Covered embedded system hardware (microcontrollers and FPGAs), digital signal/image processing, real-time intelligent systems systems, Smart Battery Management Systems for Autonomous Vehicles using Machine Learning.

10/2020 – 2/2022

Network Systems Engineer Intern, Celeste Telecom Mali Sarl- Bamako

Assessed business communication needs and recommended PABX/VoIP solutions. Installed, configured, and upgraded network systems. Skilled in L2/L3 protocols (BGP, OSPF, EIGRP, RIP, VLAN, STP, VTP) and SD-WAN/SONiC. Managed and scaled networks with Cisco, Huawei, Netgate, and Fortinet.

PUBLICATIONS ET PROJECT

2024 **‘SMART BATTERY MANAGEMENT SYSTEM FOR PORTABLE DEVICES TO ENHANCE BATTERY LIFE BASED ON MACHINE LEARNING’**
april 24 |IJIRT| Volume 10 Issue 11|ISSN:2349-6002, doi.org/10.64643/IJIRTV10I11-163173-459

2023 **‘Digital Signal Processing Algorithm Computations Using Python Frameworks’**
Minor Project Research at ECE department

2024 **‘Built-In Self- Test in VLSI design’**,
Presented at ECE-VLSI course, thought by Prof. Sunil MP

2023 **“CMOS Power Minimization Techniques for Portable Devices”**
Paper submitted to Jain FET Best Paper Competition (February 2023, unpublished)

2022 **“Tactical Advanced Computer (TAC)”**
Presented in ECE- Embedded Systems Course, thought by Prof. Ryan Das, May 2022

CONFERENCE AND SEMINAR PAPERS

2023 **‘Electronics And Communication Engineering - 2030 ’**

Held in march 2023 Presented at Jain University’s ECE Department Avalanche Club, Bangalore.

ACADEMIC & TEACHING EXPERIENCE

2023 – Now **Generative AI Tools Tutor**,
 LLMs, ChatGPT, Perplexity, DeepSeek. Gen AI automation and AI Agent Building over n8n, TensorAct. AI assisted Coding and Revision.

2020 – Now **French Teacher Online**,
 As native French Speaker, I used to be part time French Tutor for A1,A2,B1,B2,C1, C2 for kids majorly and adults as well.

ACTIVITIES

2019 – Present **Social Charity Youth of Mamaribougou**

Youth Charity Trust organization for widows and Orphan in Mali through donation of kits, food and welfare

SKILLS

Languages

English and French (bilingual); **Spanish** (conversational); **Arabic** (Fluent); **Hindi** (Fluent).

REFERENCES

Dr. Abdoulaye Sidibe

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